WOMEN AND CHILD WELFARE WITH SPECIAL REFERENCE TO INTEGRATED CHILD DEVELOPMENT SCHEME (ICDS) IN SOLAPUR DISTRICT OF MAHARASHTRA STATE

ABSTRACT OF THE THESIS

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

Abstract submitted by

Ajay Hindurao Ambildhok

ID No. 13PHM003

Under the Supervision of

Dr Ashulekha Gupta

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SCHOOL OF MANAGEMENT

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ACRONYMS AND ABBREVIATIONS USED IN STUDY.

AW	Anganwadi.
AWC	Anganwadi Centre.
AWW	Anganwadi Worker.
ICDS	Integrated Child Development Services.
ECE	Early Child Education.
ISO	International Organization for Standardization.
MOC	Mother of Child.
NCC	National Cadet Corps.
ORS	Oral Rehydration Solution.
PLW	Pregnant and Lactating Women.
PSE	Pre-School Education.
QPSE	Quality of Pre-School Education.
SNP	Supplementary Nutrition Program.
SOP	Standard Operating Procedure.

1.INTRODUCTION:

1.1 BROAD SOCIO-ECONOMIC BACKGROUND OF INDIA:

The economic growth of a country, amongst other things, primarily depends on the health status, educational status, skill development and quality of life of its citizens. Despite a quantum jump in life expectancy, average period of schooling and per capita income, India's ranking as per Human Development Index (HDI), stands at 129 out of 189 member countries. **(drishti, 2019).** Even if one applies other parameters like the Human Capital Index, which is based on the level of knowledge and skill of people, India's ranking in the year 2017 was a low 103. It is pertinent to note here that the economic growth of a country largely depends on the quality of its population. **(livemint, 2017)**. On the yardstick of Socio-Economic Status also India has to cover a lot of ground.

1.2 INTEGRATED CHILD DEVELOPMENT SERVICES: (ICDS).

India is plagued by various problems like malnutrition, high maternal mortality rate, high child mortality rate, significant diseases, inadequate coverage of vaccination, the adverse impact of environmental factors on children, population boom and the poor state of prevailing education. All these factors have a bearing on the quality of the population, its capacity to support sustained economic growth and its economic and general wellbeing. Keeping in mind all these factors and primarily the welfare of children, especially concerning their health and education, the Integrated Child Development Scheme was launched in India on a pilot basis on October 2 1975. This is one of the most significant and unique programs in the world which aims to coordinate functions of all concerned Government ministries including the Education and Health to channelize all required resources for the betterment of children who are to act as a growth engine of the economy in time to come. It is a well-known fact that if a child is looked after for first 1000 days of his life, including the time spent in mother's womb, the child can be kept away from malnutrition and sound foundation can be laid out for child's physical, psychological, social and educational development. As a direct result of this, the ICDS also focuses on the health and education of adolescent girls and pregnant and lactating women. ICDS is designed for the children in the age group of 0 to 6 years and provides various services like

Supplementary Nutrition Program (SNP), Pre-school Education, Nutrition and Health Education, Immunisation, Health check-up and Referral. Out of these services Immunization, Health check-up and Referral are being provided by the Ministry of Health and Family Welfare under the scheme of National Health Mission. ICDS provides a common platform in the form of Anganwadies for the convergence of all the services under one roof. By rendering such services, ICDS aims to achieve objectives: (a) to improve the nutritional and health status of children (b) to lay the foundation for proper psychological, physical and social development of the child (c) to reduce the incidence of mortality, morbidity, malnutrition, and school dropouts (d) to achieve effective coordination of policy and implementation amongst the various Government departments to promote child development (e) and to enhance the capability of the mother, through proper nutrition and health education, to take care of the usual health and nutritional needs of the child.

1.3 Role of AWCs and AWWs in implementation of ICDS.

Table. Role of AWC AND AWW.

Services Provided	Planned Beneficiaries	Service Provider.
1) Supplementary Nutrition.	Children from 0 to 6 years and Pregnant and Lactating Women. (PLW)	Anganwadi Worker (AWW) at Anganwadi Centre (AWC)
2) Immunization.	Children from 0 to 6 years and Pregnant and Lactating Women. (PLW)	Auxiliary Nurse Midwife (ANM)/MO (Medical Officer)/AWW
3) Health Check-up	Children from 0 to 6 years and Pregnant and Lactating Women. (PLW)	ANM/MO/AWW
4) Referral Services	Children from 0 to 6 years and Pregnant and Lactating Women. (PLW)	ANM/MO/AWW
5) Pre-School Education.	Children from 3 to 6 years.	AWW
6) Nutrition and Health Education.	Women in the age group of 15 to 45 years.	AWW/ANM/MO

https://-wcd.nic.in/icds.aspx

The above table shows that almost all services of ICDS are being provided at AWCs by AWWs. Even for immunization, AWWs are actively involved. She has to organize immunization camps after intimating the parents of targeted children. AWWs

maintain records of immunization of every child and pregnant woman. Very often, such camps are organized in AWC itself.

2. LITERATURE REVIEW:

2.1 KNOWLEDGE OF AWWs

Almost all the authors have emphasized the need to train Anganwadi Workers (AWWs) to improve their knowledge about various facets of the ICDS services. By and large, it was noticed that the level of knowledge possessed by AWWs was inadequate and therefore it was felt that the training should not be restricted only to induction phase but should also include on the job training at a pre-decided time interval to refresh, revise and to update knowledge. Few authors have pointed out that the task does not end by merely training AWWs as the active participation of various beneficiaries in a training program organized by AWWs is a must. **Baliga &Walvekar (2017)** have concluded that the knowledge of AWWs about ICDS services has nothing to do with the experience and qualification of AWWs. **Andey et al. (2019)** have analyzed the performance of AWWs concerning various parameters like age, education and experience. However, they have not separately assessed the performance concerning individual parameters like experience. **Akshatha & Sankangoudar (2018)** have concluded that the level of job performance has nothing to do with AWW'S knowledge. This conclusion appears to be hard to accept and therefore requires further investigation. On the other hand, **Patil & Doibale (2013)** have concluded that the level of knowledge of AWWs does depend on experience, and AWW's qualification does not have any bearing on her knowledge. These findings are not in tune with each other and appear to be unconvincing. Prima facie one can safely conclude that with the increase in experience and qualification of AWWs, the level of skills and knowledge should also go up. This view was also supported by other researchers like **Manhas & Dogra (2017)**.

2.2 IMMUNIZATION

Angadi et al. (2013) have suggested that the services of sociologist and behavioural scientist should be provided to the beneficiaries, which will help to mould their attitude towards immunization positively. However, these researchers have correctly stated that the activities and work schedule of AWWs and health workers should be adequately synchronized, which will help efficient administration of immunization programme by making beneficiaries aware of the plan of immunization and by dispelling doubts being nursed by beneficiaries about the side effects of immunization. Some researchers have rightly stated that the educated couple tends to follow the recommendations of health officials. Therefore the woman undergoes antenatal care, delivers a child in government or private hospital and eventually follows the immunization program. Thus, education improves awareness which ultimately motivates beneficiaries to vaccinate their offsprings. **Mahalingam et al. (2014)** have correctly stated that as compared to urban women, the knowledge and awareness of rural women about vaccination are low, which gets reflected in its below-par coverage. On the other hand researcher like **Nath et al. (2008)** have found out that beneficiaries who have availed benefits in public hospitals have lesser rate of coverage of immunization as compared to those who used the services of private hospitals.

2.3 OPINION OF BENEFICIARIES ABOUT ANGANWADI WORKERS AND ANGANWADI FACILITIES.

Very few authors have correctly pointed out that the level of education plays a vital role in expanding the coverage of ICDS services and the participation of beneficiaries is maximum when the knowledge of AWW is adequate.

Cherian et al. (2019). have suggested that AWWs should be given extensive training about dental care and diagnosis. These kinds of recommendations appear to be ambitious and considering the already high workload of AWWs, making them undergo training in medicine and dentistry is a bit too much. The role of AWWs is not cut out for such specialized functions. **Roy & Saikia (2019)** have assessed the infrastructural facilities at AWCs and have noted the inadequate and sub-standard quality of buildings, kitchens, study materials, basic furniture, utensils, toilets, drainage facilities, potable water etc.

Few studies have collected information about the socio-economic background of AWWs, but have not analyzed their performance and knowledge based on their qualification and financial position and educational standing. Similarly, no literature was found to substantiate that a study was carried out in Solapur district to find out qualities and traits expected from an AWW to perform better. After noticing these gaps, it was decided to carry out a study to find out characteristics expected of an AWW.

2.4 PRE-SCHOOL EDUCATION.

Almost all researchers have cited reasons like low honorarium of AWWs, poor infrastructure, non-availability of own building, furniture and equipment in sufficient quantities, excessive workload, slim chances of promotion, other duties like election and census, a shortage of drinking water and clean toilets, no separate space for ECE and storage of food/books/toys, inadequate training to AWWs on Early Child Education (ECE), high absenteeism of both children and AWWs, location of the school near highways/hilltop/slope, non-availability of a playground of the size 15x20 square Metre as recommended by National Council of Educational Research and Training (NCERT), non-adherence of the teacher to student ratio of 1:25 as per recommendations of NCERT, non-availability of teaching material like charts and pictures amongst the reasons for the poor state of affairs of pre-school education. Few researchers have concluded that the children trained by private Balwadies fared better as compared to children from ICDS run schools. Researchers like **Bakken, Brown & Downing (2017)** have stated that imparting quality education at an early age to a child lifts its overall performance in the long term as well. Progress of children also depends on the socio-economic factors, which include income, employment and education of parents.

2.5 NUTRITION.

Reasons cited for malnutrition by researchers like **Sundaraman (2006)** are (a) Discrimination based on gender which decides priorities and allocation of food amongst family members (b) Early marriage of girl child which results in early pregnancy and delivery of less weight child (c) Insufficient gap between children (d) Repeated pregnancies, inadequate health care facilities which culminates into frequent sickness and therefore malnourishment (e) Scarcity of nutritious foods like meat and

millets (f) Reluctance to change food habits, lack of proper counselling, irregular supply of Supplementary Nutrition (SN) and sharing of SN by other family members, (g) Lack of targeted approach, misconception like to eat less during pregnancy which will lead to less weight of the baby which eventually facilitates easy delivery, (h) Improper complimentary food, weak financial and decision making empowerment, (i) Parents themselves being malnourished and underweight producing underweight children (j) Inadequate consumption of micronutrients like iron and vitamin A, (k) Insufficient exposure, especially in urban areas to sunlight etc.

Rajivan (2006) has stated that imparting nutrition education is more complicated than offering nutritious food. Similarly, correct eating habits are more important than the economic condition of people.

2.6 BREASTFEEDING.

Ceasar et al. **(1999)** have carried out a detailed study and have rightly termed breastfeeding as the first immunization of a newborn child. This is because breast milk contains beta carotene which helps retina development, different fatty acids including omega-three which allows the growth of retina and brain, cholesterol which aids the development of membrane, lesser protein and minerals which do not put excessive strain on the developing renal function, carbohydrates which provide glucose and energy, enzymes to help digestion. Besides this, milk contains 87 per cent water, and basically, it is a cellular compound having 4000 cells per cubic mm. Thus breast milk is indispensable for a child and helps to bring about both cognitive and physical development of a child.

Various studies have pointed out that breastfeeding keeps away pneumonia, asthma, diarrhoea, gastrointestinal diseases like Necrotizing Enter Colitis (NEC). Similarly, it was correctly found out that Breast Feeding Promotion Programs do help to extend breastfeeding until the age of at least 12 months by inculcating breastfeeding habit. It was also found out that exclusive breastfeeding up to the age of 6 months and continuation of feeding beyond that helps to develop cognitive skills. Researchers also have found out that breast milk does not contain complex A1 protein which usually will activate an immune response against the child's delicate organs like pancreas triggering diseases like Type 1 diabetes. Similarly, it was concluded that the quality

and quantity of fatty acid might get badly affected in case the mother undergoes mental strain. Again it was found out that repression of Oestrogen Receptor Activity (REA) leads to an unfavourable impact on the uterus, mammary glands and ducts.

2.7 WEANING FOOD.

Sometimes, experience plays a vital role in the introduction of weaning food. For example, first-time mothers as per a study conducted in Australia were not aware of the fact that at the age of 4 months, a baby is not physiologically developed to accept weaning food. Again, conflicting views given by different experts will confuse the mothers. For example, WHO recommends the introduction of complementary food at the age of 6 months, whereas industries engaged in the manufacture of baby foods recommend correct Age as four months to commence weaning food. Few researchers like **Huffman (1994)** have noted that since the stomach size of a child is small energy-dense food should be given to the child and since energy requirement of a child at the age of six months goes up by about 60 calories only breastfeeding is not enough.

As per one study, the knowledge, as well as the practice of weaning food, is independent of the number of children a mother has, income, occupation and religion of such a mother. Few authors have correctly pointed out that even though few educated mothers had timed the switch correctly, they were not sure about the adequacy of such weaning food. If this happens, the children will not get adequate energy. One more interesting and relevant finding is that a mother who has not more than two children and has kept sufficient gap between them and who is a housewife, will always feed on demand and therefore prolong lactating phase, as compared to working women.

2.8 ANGANWADI WORKERS: WORKING CONDITIONS.

Job satisfaction and the resultant morale of AWWs play a significant role in shaping their performance at work. Authors like **Krishnaprasad & Peer (2019)** have pointed out that the AWWs are saddled with excessive work at meagre honorarium. They are not being considered as Workers and are not entitled to statutory benefits. The bulk of their time is consumed in the distribution of supplementary food and imparting pre-school education and massive record-keeping, participation in various surveys

including census, attending monthly meetings and interaction with local government bodies like Gram Panchayats. This leaves them with very little time to take care of other important aspects like nutrition and health education and referral services.

2.9 RESEARCH GAP.

1) Collective review of all the literature points out that the sample size in most of these cases was less than fifty. Therefore, the conclusions derived based on such work may not represent the actual situation.

2) Again, few of the above studies have been carried out in urban areas where the socio-economic situation is drastically different from the rural areas.

3) A gap was felt to study the variables like Knowledge, Education, Age, Income, and Experience of AWWs and its influence on the performance of children attending Pre-School in Anganwadi Centres and on the awareness and knowledge of various beneficiaries.

4) The need was also felt to find out an ideal profile of AWW in terms of experience, education, and knowledge, which would help to enhance the quality of ICDS services.

5) Maybe for the first time, leadership traits of AWWs are considered in the present study to examine its influence on the ICDS services.

3. OBJECTIVES AND SCOPE.

Based on the holistic approach adopted for the study, the following have been set out as the study objectives.

1) To study the impact of the Integrated Child Development Scheme on the performance of children attending Pre-School Education at Anganwadi Centres.

02) To study the impact of the Integrated Child Development Scheme on the knowledge and awareness of pregnant and lactating women served by Anganwadi Centres.

03) To study the opinion of beneficiaries (Mothers of Children and Pregnant and Lactating Women) with reference to their socio-economic (Age, education and

income) on Aganwadi facilities (Pre-School Education, Anganwadi Workers, Anganwadi Centres, and ICDS services).

04) To study the relationship between socio-economic conditions, educational background, personal characteristics of Anganwadi workers and (a) the knowledge of AWW and (b) the quality of Integrated Child Development services being delivered by AWW.

4. HYPOTHESES.

Following hypotheses were worked out to find out which one of these four sets holds true either fully or partially.

1) H_0 1: There is no significant impact of Integrated Child Development Scheme on the performance of children attending PSE at Anganwadi Centres.

H_1 1: There is a significant impact of Integrated Child Development Scheme on the performance of children attending PSE at Anganwadi Centres.

2) H_0 2: There is no significant impact of Integrated Child Development Scheme on the knowledge and awareness of pregnant and lactating women served by Anganwadi Centres.

H_1 2: There is a significant impact of Integrated Child Development Scheme on the knowledge and awareness of pregnant and lactating women served by Anganwadi Centres.

3) H_0 3: There is no significant difference in opinion of beneficiaries (MOC and PLW) with reference to their socio-economic (Age, education and income) on Anganwadi facilities (PSE, AWW, AWC and, ICDS services).

H_1 3: There is a significant difference in opinion of beneficiaries (MOC and PLW) with reference to their socio-economic (Age, education and income) on Anganwadi facilities (PSE, AWW, AWC and, ICDS services).

H_{03} (a) There is no significant difference in opinion of MOC, age-wise, on AWW; PSE.

H_{03} (b) There is no significant difference in opinion of MOC, education-wise, on AWW; PSE.

H_{03} (c) There is no significant difference in opinion of MOC, income-wise, on AWW; PSE.

H_{03} (d) There is no significant difference in opinion of PLW, age-wise, on AWC; ICDS Services.

H_{03} (e) There is no significant difference in opinion of PLW, education-wise, on AWC; ICDS Services.

H_{03} (f) There is no significant difference in opinion of PLW, income-wise, on AWC; ICDS Services.

4) H_0 4. There is no significant relationship between socio-economic variables, educational background, personal characteristics of Anganwadi workers and (a) their knowledge and (b) the quality of Integrated Child Development services being delivered by them.

H_1 4. There is a significant relationship between socio-economic conditions, educational background, personal characteristics of Anganwadi workers and (a) their knowledge and (b) the quality of Integrated Child Development services being delivered by them.

H_{04} (a): There is no significant relationship between the educational level of AWW and a) knowledge possessed by them b) ICDS services delivered by them.

H_{04} (b): There is no significant relationship between income of AWW and a) knowledge possessed by them b) ICDS services delivered by them.

H_{04}(c): There is no significant relationship between work experience of AWW and a) knowledge possessed by them b) ICDS services delivered by them.

H_{04} (d): There is no significant relationship between Leadership Qualities of AWW and a) knowledge possessed by them b) ICDS services delivered by them.

5. RESEARCH METHODOLOGY

5.1 SAMPLE AND PROCEDURE

The geographical scope of the present study is confined to the boundaries of Solapur District of Maharashtra State. The study has focused on the functioning and the performance of the Anganwadis in Solapur District. The present study has adopted a descriptive research design for data collection and its analysis taking into account the quantitative approach. In rural Solapur, there are 3269 Anganwadi Centres (AWCs), out of which about 6% were selected by using a simple random lottery sampling technique. From each of these AWCs, two distinct sets of sample respondents were selected. Set-1 respondents consisted of the Anganwadi workers, and Set-2 respondents had the Anganwadi beneficiaries consisting of Pregnant Woman, a lactating woman and Mother of a child attending pre-school education. The sample size for each of the four categories of respondents was 202. Therefore, the data was collected from a total of 808 respondents. The primary data was collected through four different sets of questionnaires for four different categories from AWWs and beneficiaries.

5.2 DATA ANALYSIS-METHODS.

The researcher has conducted a detailed data analysis after cleaning and purifying the data by using SPSS 22.0. Various statistical techniques like Descriptive Statistics, t-test, ANOVA, Correlation and Regression were used for data analysis. The reliability and normality of data and the correctness of the sample size was ensured.

6. RESULTS AND DISCUSSION:

6.1 Hypothesis H_{01}.

There is no significant impact of the Integrated Child Development Scheme on the performance of children attending PSE at Anganwadi Centres.

Model	R^2	Adjusted R^2	F	Sig	Equation	Result
1	.188	.184	47.130	0.000	PSE=9.007 + .359 (Knowledge of AWWs) + .633 (Educational Qualification)	Rejection of Null Hypothesis H_{01}
2	.248	.237	22.064	0.000		

With the increase in the level of Knowledge and Education of AWWs, the performance of children undergoing PSE also goes up. Since the impact of ICDS, based on the knowledge and education of AWWs on the performance of children attending PSE run by AWC is significant, the Null Hypothesis H_{01} is rejected and alternate hypothesis has been accepted.

6.2 Hypothesis H_{02}

There is no significant impact of the Integrated Child Development Scheme on the knowledge and awareness of pregnant and lactating women served by Anganwadi Centres.

Model	R^2	Adjusted R^2	F	Sig	Equation	Result
1	.937	.937	3025.42	0.000	Awareness of PLW= 1.419 + 0.686 (Knowledge of AWWs) + 0.212 (Age group of AWWs) + 0.184 (Education)	Rejection of Null Hypothesis H_{02}
2	.940	.939	786.48	0.000		

Thus with the increase in the level of Knowledge, Age Group and Education of AWWs, the awareness and knowledge of PLW also goes up. Since the impact of ICDS, based on the knowledge, age group and education of AWWs on the awareness and knowledge of PLW is significant, the Null Hypothesis H_{02} is rejected, and alternate hypothesis has been accepted.

6.3 Hypothesis H_{03}.

There is no significant difference in opinion of beneficiaries (MOC and PLW) with reference to their socio-economic variables (age, education and income) on Anganwadi facilities (PSE, AWW, AWC and, ICDS services).

Hypothesis	F	Sig	Variable	Result
H_{03} (a)	1.590	.206	The age-wise opinion of MOC ABOUT AWWs	Null Hypothesis H_{03} (a) has been accepted
	1.313	.271	The age-wise opinion of MOC ABOUT PSE	
H_{03} (b)	.789	.559	The education-wise opinion of MOC about AWWs	Null Hypothesis H_{03} (b) has been accepted
	.724	.606	The education-wise opinion of MOC about PSE	
H_{03} (c)	.654	.581	The income-wise opinion of MOC about AWWs	Null Hypothesis H_{03} (C) has been accepted.
	.425	.735	The income-wise opinion of MOC about PSE	
H_{03} (d)	.835	.476	The age-wise opinion of PLW about AWC	H_{03} (d), Accepted
	.478	.698	The age-wise opinion of PLW about ICDS Services. (Check-up Facilities)	H_{03} (d), Accepted
	2.612	.053	The age-wise opinion of PLW about ICDS Services. (Referral Services)	H_{03} (d), Accepted
	.172	.916	The age-wise opinion of PLW about ICDS Services. (SNP)	H_{03} (d), Accepted
	2.665	.049	The age-wise opinion of PLW about ICDS Services. (Ways to improve SNP)	H_{03} (d), Rejected
	2.665	.049	The age-wise opinion of PLW about ICDS Services. (Selection of Beneficiaries)	H_{03} (d), Rejected.
	2.665	.049	The age-wise opinion of PLW about ICDS Services. (Ways to improve Health/Nutrition Education)	H_{03} (d), Rejected.
H_{03} (e)	1.265	.281	The education-wise opinion of PLW	H_{03} (e),

			about AWC	Accepted
	.2.158	.060	The education-wise opinion of PLW about ICDS Services. (Check-up Facilities)	H_{03} (e), Accepted
	1.122	.350	The education-wise opinion of PLW about ICDS Services. (Referral Services)	H_{03} (e), Accepted
	.332	.893	The education-wise opinion of PLW about ICDS Services. (SNP)	H_{03} (e), Accepted
	.991	.424	The education-wise opinion of PLW about ICDS Services. (Ways to improve SNP)	H_{03} (e), Accepted
	.991	.424	The education-wise opinion of PLW about ICDS Services. (Selection of Beneficiaries)	H_{03} (e), Accepted.
	.991	.424	The education-wise opinion of PLW about ICDS Services. (Ways to improve Health/Nutrition Education)	H_{03} (e), Accepted.
H_{03} (f)	1.579	.196	The income-wise opinion of PLW about AWC	H_{03} (f), Accepted
	.348	.791	The income-wise opinion of PLW about ICDS Services. (Check-up Facilities)	H_{03} (f), Accepted
	.940	.422	The income-wise opinion of PLW about ICDS Services. (Referral Services)	H_{03} (f), Accepted
	.582	.628	The income-wise opinion of PLW about ICDS Services. (SNP)	H_{03} (f), Accepted
	2.536	.058	The income-wise opinion of PLW about ICDS Services. (Ways to improve SNP)	H_{03} (f), Accepted
	2.536	.058	The income-wise opinion of PLW about ICDS Services. (Selection of Beneficiaries)	H_{03} (f), Accepted.
	2.536	.058	The income-wise opinion of PLW about ICDS Services. (Ways to improve Health/Nutrition Education)	H_{03} (f), Accepted

With reference to Age, Education and Income of MOC and, PLW their opinion about PSE, AWW, AWC and ICDS services were examined to verify the magnitude of relationship with independent variables. By and large, no significant relation was observed between independent and dependent variables except relation between Age and ways to improve SNP, selection of beneficiaries and ways to improve health/nutrition education and therefore the null hypothesis has been accepted.

6.4 Hypothesis H_{04}.

H_{04}: There is no relationship between socio-economic variables, educational background personal characteristics of Anganwadi workers and (a) their knowledge and (b) the quality of Integrated Child Development services being delivered by them.
4.4.1 Education of AWWs and its relationship with their knowledge and quality of ICDS services.

The results of statistical analysis are summarised in the following table.

HYPO THESIS	Variable	Knowledge of AWW		Quality of ICDS Services Delivered by AWW.		Result (Null Hypothesis)
		F	Sig	F	Sig	
H_{04} (a)	Education of AWW	3.409	0.006	6.041	0.000	Rejected
H_{04} (b)	Income of AWW	1.391	.247	1.958	.121	Accepted.
H_{04} (c)	Work Experience of AWW	6.182	.000	3.221	.014	Rejected
H_{04} (d)	Leadership Qualities of AWW	3.698	.243	--	--	Accepted
		--	--	1.620	0.000	Rejected

Income wise, there is no significant relationship between the variables. Similarly, leadership qualities do not have significant relations with knowledge of AWW. However, the rest of the variables, do have a significant relationship, and therefore $Hypothesis_{04}$ has been rejected.

7. CONCLUSION, LIMITATIONS AND SUGGESTIONS

7.1 CONCLUSION.

Knowledge of AWWs based on their awareness of ICDS services was found to be the most significant factor to determine the performance of a pre-school going child and the knowledge and awareness level of PLW. This fact goes on to lead to the conclusion that concerted efforts should be undertaken to ensure that the AWWs always remain relevant by way of imparting training at regular intervals. With the regression analysis showing the significant impact of education of AWWs, on the

performance of children attending PSE, this factor remains influential after Knowledge of AWWs. The impact of higher education of AWWs on PLW is also significant, and therefore it would be pragmatic to frame a policy to recruit a woman as AWW who is at least a graduate. The regression analysis has shown that knowledge has a more significant influence than mere education. This reiterates the fact that the performance of ICDS cannot be improved just by recruiting highly qualified AWWs. The knowledge of such well qualified AWWs should always be updated by way of extensive training programs. The interesting finding was that the leadership traits shown by AWWs during their schooling have a positive impact on the quality of services being rendered by them. Mainly, it was observed that such AWWs were particularly good at imparting pre-school education and health and nutrition-related education to various beneficiaries. It is interesting to note that 89% of the mothers who had availed of benefits meant for pregnant and lactating women also have registered their children in AW Centres. Thus here the conclusion is that in rural areas and especially in remote and far away areas there is no other option but to avail the services being rendered by the ICDS. Similarly, 57% of mothers of children attending AW run pre-school had themselves attended AWCs when they were children. It may be reckoned that ICDS services are not meant to be availed perpetually and pass on to the next generation. This is because the ICDS services are expected to improve the economic, educational and social status of beneficiaries and to put them in a higher orbit. However, the reuse of such facilities by next-generation is probably regressive and is equivalent to acceptance of the failure of ICDS. With the rise in income, new green shoots are visible in the form of a trend to put children in private English Medium schools. Data collected from 39 AWCs indicates that 17% of the children have opted for such private schools and it draws us to the conclusion that going forward the significance of AWCs especially concerning pre-school education will indeed decline.

7.2 LIMITATIONS AND SCOPE FOR FUTURE RESEARCH

The data was collected only from one district of Maharashtra. Characteristics of demographic factors are different even in a neighbouring district, let alone the rest of the state or country. Therefore, the findings of this study can not be generalized and made applicable to other parts of the country. New research needs to be conducted, giving due representation to different regions. There is a need to consider the health profile of the parents of a child. In India, about 22% of the adults are underweight and therefore, malnourished. The impact of such underweight parents on the health status needs to be separately studied, which may provide an altogether different perspective to deal with the problem of malnutrition amongst children. The practice of availing of AW services is being passed on from an earlier generation to the next generation. Women who had availed of services while being a child themselves decades back are now availing benefits meant for pregnant and lactating women, and their children are also enrolled in AWCs. A separate study needs to be carried out to track their overall present socio-economic and educational status to understand their present situation and progress made by them over some time after having used ICDS services.

7.3 SUGGESTIONS.

Operations of all AWCs to be standardized by obtaining ISO (International Organization for Standardization) certification. Standard Operating Procedure (SOP) should be in place for all AW functions and procedure. An extensive training program should be organized for all the AW Workers at periodical intervals, and the respective Supervisor may be held responsible for such training. Targeted training should be imparted to all the active beneficiaries. Dedicated TV channels having different well-designed programs for pre-school education, training of all stakeholders should be started without any further loss of time. This will free the AWW, to some extent, and enable her to focus on other essential functions. To keep pace with the outside world and to compete with other well-placed peers' medium of education should be English. To use the services of Self Help Group to provide cooked food to the children attending pre-school education as well as to the PLW. As an average, every AWC serves food to 31 pre-school attending children and 12 PLW. Thus the size of 43 is optimum enough to make this scheme viable. This has got dual benefits, i.e. AWWs will be spared of cooking duties and use this time for more constructive activities, and

women in the area will get employment opportunities besides developing a vision for entrepreneurship. This will also encourage having a cohesive community and their active participation in AW activities.

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